

INTESTINAL POSITION AND BODY FUNCTIONS

BY A. JUDSON QUIMBY, M. D.

New York

Clinical Professor of Radiography, New York Polyclinic Medical School and
Hospital; Radiographer, New York Foundling Hospital

The cases that have presented themselves for diagnosis with the conditions causing symptoms of intestinal stasis secondary to disturbances of obscure origin, brings forward some valuable lessons that should train us to keep an open mind in order that we may recognize these abnormal conditions and suggest how relief may be obtained. Lane has pointed out that constipation is essentially secondary to certain mechanical defects, when such functional disturbances arise and are but incidents in the chain of events which lead to the constipated state.

Occasional references are made by a few observers to the condition called spastic constipation and spastic colitis, and I desire to emphasize the necessity for a careful correlation of the anatomical defects with the physiological. In reviewing a large number of cases examined by myself in which mechanical defects exist, secondary to adhesions, malformations and evolutionary developments, I have been greatly impressed by the number who exhibit all the signs of a tightly contracted colon; this condition is most pronounced in the last half of the colon, usually from the middle of the transverse portion to the pelvic sigmoid. Furthermore, I have never yet failed to find in a case of spastic colitis some abnormality of sufficient extent to explain a reflex irritation. In abnormal appendices, ileal kinks and adhesions of the right transverse colon it seems to occur quite often.

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The methods of treatment which these patients have been subjected to is variable, while perhaps the most impressive fact ascertained from the major number is that rectal irrigations seem the favored procedure with symptomatic success apparently occurring in many cases. My impression while observing the action of the enema when administered, is that it performs its duties by bringing about two conditions; first, by distending the rectum and filling the pelvis; this forces upward those intestines which have become lodged in the pelvis. Second, when the fluid is injected into the colon, unless of a very irritating nature, the walls of the colon act as if paralyzed in advance of the head of the fluid column, permitting them to open and allow the passage of all the contents. This semi-paralyzed condition will exist for a considerable period and is easily demonstrated; again, while the colon may institute sufficient peristalsis to carry its contents toward the rectum, it will be some time before it contracts to its former normal spastic state. This is due to the cleansing of the bowel, the relief of irritation and the temporary restoration to a normal tone.

In a large number of cases examined for stasis, never have I seen evidence of reverse peristalsis, and I do not believe that it exists in the alimentary canal; such backward flow of colonic contents as we witness, following the administration of an enema, is simply due to a non-resistance of the intestines. Such a phenomena as the forcing upward of the bowel contents by a systematic contraction in the reverse direction of the muscle fibers, to my belief does not occur. I have seen two cases with evidence of backward flow of bismuth which had been administered by mouth, one of them where the re-

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turn had been from the last half of the colon to the cecum, and the other seen in consultation, in which the return at the end of about six days after the meal had been from the colon to the duodenum. However, in these cases there was extreme atony of all body tissues. But I am convinced that what can be termed an internal diarrhea, in which a portion of the colon contents was very fluid may occur, this would result in the same phenomena of passive upward drift, as we witness when an enema is given. Some observers have made the mistake of concluding that the passive upward flow and reverse peristalsis are the same, which I dispute.

Many cases of ptosed cecum are symptomatically relieved by administration of an enema which elevates the cecum from its impacted position in the right pelvis, where it may have been lying over a prolonged period. Also that portion of the sigmoid which normally rides over the pelvic brim may be ptosed into the right pelvis wedged down against the rectum just above the anus, thus acting as an obstruction to the rectal contents. Administer an enema, and the promptness with which this portion of the sigmoid is elevated into the abdomen is a great surprise. I have seen cases in which there was every evidence that the cecum had not been out of the pelvis for a long period, and was only elevated after difficult manipulation.

We might divide intestinal cases into two classes that affect the mental state; first, the high-strung, nervous, quick-tempered, tense person, who is apparently under an enormous nervous strain, at the verge of collapse at all times. Second, another group with many symptoms of melancholia predominating. We

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will find that the first class have a definite group of conditions which may involve one or more structures in a typical picture, consisting in the fixation of an organ or part, so that when it is pulled downward and suspended, like a man hung by his thumbs, the strain of a great weight comes on a small area.

Illustrating this we may have the duodenum adherent to the gall-bladder or the appendix adherent to some part and subjected to the downward pull of the cecum; this may not involve much drop of the organ. The other class of cases in which symptoms of melancholia predominate are practically always found with the cecum occupying a prominent position in the pelvis. In these cases if it is bound down by adhesions, it is always found in this place, but if no adhesions exist the cecum in many cases, when emptied, will contract and arise from the pelvic cavity to drop back again when the patient assumes the erect attitude and a new supply of food has entered the cecum. This latter condition will oft-times bring about a certain mental state which is characterized by depression, the only rational cause that has presented itself to me is that it is a phsycois secondary to the constant traumatism of the genital system, especially in the female.

While the mobile cecum may be inclined to fall in various locations dependent on the position assumed by the patient, we can only consider that occurring when the patient is erect because of the long hours this attitude is assumed as compared with the time spent in the horizontal position.

If the cecum is not adherent in the pelvis it may drift upward after its contents have been emptied into the transverse colon; this will occur when the patient lies down or when peristalsis contracts the cecum. In

many cases the cecum appears to have lost muscle tone to such an extent as to remain dilated, retaining a portion of a meal for many days. My practice is to watch a case over a number of days in expectation that the cecum will be found dislodged from the pelvis at some time. If this does not occur, I then administer an enema, observing its progress by the fluoroscope and, if this is not successful, it is justifiable to employ digital pressure from below. Failing in this, it is wise to conclude that adhesions are binding the intestine or cecum in its position.

As the normal contents of the pelvis can only consist of rectum and a portion of the genito-urinary tract, such a large structure as a dilated cecum occupying the dominate part of the internal pelvis will cause all the viscera to be pushed aside, and assume various abnormal positions, subjected to additional lateral pressure. This crowding of the pelvic organs interferes with the blood supply by twisting the blood vessels and retarding the flow of the blood-stream. The active normal function of an organ is dependent on its blood supply, while a disturbed blood flow will inhibit the normal functioning of the gland or viscera which it supplies. The genito-urinary specialist has dwelt upon the importance of the effect of a distended rectum upon the seminal vesicles and prostate. How much more would this be aggravated by an impacted cecum lying in the cul-de-sac? The persistence of the symptoms in cases of ptosed cecum is more marked because of the difficulty in keeping the cecum clean as compared with the rectum. This not only will cause distress to the individual with a ptosed cecum by the absorption of toxic substances, such as protein through the mucosa direct with all the symptoms concomitant thereto, but

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also will disturb the normal functioning of the ovaries or prostate by the excessive pressure which, as already indicated, will in time disturb their blood supply.

Now, we know that the internal secretions are intimately allied one with the other and are dependent for true physiological reactions upon the stimuli or the inhibition of one hormone to the other for the internal secretions to perform their definite function. While a breaking down in the intimate chain of reflex stimuli which seems so vital to the requirements of the ductless glands in their purpose to safeguard health, must be guarded against.

This is only a concise statement to indicate the possible interference with the normal secretory functioning of the ovary or prostate when such a condition as herein described exists.

The physical state from adolescence to old age is unquestionably influenced by the sexual functions, whether the patient is conscious or unconscious of any disturbed function or not, their correct mental attitude is greatly dependent upon a normal physiological reaction. Melancholia is more prevalent at the age of the most active sexual life.

In making the statement that all cases of mental depression or melancholia which I have examined had a ptosed cecum occupying the pelvis, I am not making the assertion that this applies to all cases in this mental state. The ones submitted to me have usually been referred for symptoms referable to the intestines, although a few have had obscure pelvic disturbance. The writer has witnessed a few operations on maniac, depressant insanity, in which the genital system was

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involved to a marked degree, such as an adherent pre-pulse or inverted uterus.

When ptosis exists the position of the respective organs is greatly influenced by the amount of material in the intestinal canal below them; for instance, when the rectum is empty, the lower coils of the ileum may drop into the pelvis, should the rectum become distended with the large quantity of material, the lower ileum is forced upward, but as the distension of the rectum by the bowel contents descending into it first applies pressure from above, the cecum is not elevated by it; but, on the other hand, may be wedged more securely in the pelvis. Providing the rectum is empty, if we administer an enema, with the tube inserted but a short distance in the rectum, the distension is from below upward, which carries the cecum up as it gradually distends the rectum and sigmoid.

The position of the transverse colon is greatly influenced by the distension in the ileal coils; therefore, this structure is inclined to vary from time to time, so that a single examination will not always accurately determine its position. As the downward swing of the transverse colon is a great factor in the determination of an angle at the hepatic and splenic flexures, as well as the seriousness of colonic deformities with respect to their importance in intestinal obstruction, the relationship of the position of the transverse colon to other sections of the intestines is very important.

Again, considerable importance is attached to the position of the greater curvature of the stomach when an analysis of the stomach drainage is being determined. I have found variations in the position of the greater curvature on different days to be 6 cm. or

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more, dependent on the amount of distension in the intestines. The influence of deep breathing and muscle tone on the position of the stomach is so well known, which only needs mention. I regard these factors of equal importance in influencing intestinal position and function.

Simple ptosis without acute flexures, kinks or organic changes, in itself is not detrimental to the patient's welfare. I cannot recall one case in which simple ptosis justified operation, whereas when ptosis is complicated by mechanical kinks, evolutionary or inflammatory changes, operation is justifiable so far as it corrects these conditions without participating new changes, that will relieve a cecum, which is ptosed down into the pelvis, or a sigmoid that will drop and kink in the left cul-de-sac. The pressure of an abdominal support is more apt to aggravate a condition like this than prove of benefit. We cannot place abdominal pressure low enough to maintain a mobile, wedge-like cecum in its normal position irrespective of any method of application of the abdominal support. The virtue of abdominal support below the umbilicus lies in its power to support the transverse colon and stomach, providing they are not held down by adhesions.

This paper is submitted with the hope that more light may be thrown on many of the cases of beginning neurasthenia and mental instability which, to my mind, are perhaps caused by a mechanical defect of the cecum or sigmoid readily ascertainable by the X-Ray.

40 E. 41st St., N. Y. C.